



Managing Transmission Line Ratings

Technical Rating Communication implementation workshop

Various



Agenda

3:00-3:05 p.m.

Welcome and Introductions

3:05 p.m.-3:10 p.m.

High Level Project milestones

Magaly Barajas-Roman

3:10-3:30 p.m.

Review of Limit Exchange Portal (LEP)

Mark Phelps

3:30-3:35 p.m.

Sandbox functionality

Mark Phelps

3:30-3:35 p.m.

Sandbox access next steps

Heather Latka



HIGH LEVEL PROJECT MILESTONES



MTLR Limit Exchange Portal (LEP) External Milestones

	Key Dates	Functionality
LEP Operation(UI/API)	Oct. 2, 2024 Oct. 9, 2024	Sandbox available with APIs, AARs, Seasonal Ratings, Temporary Ratings exceptions
LEP Operation	Dec. 4, 2024??	Sandbox update to include Local Transmission feature and bug fixes, if needed Vendor is experiencing slight delays so this date may slip.
NX	March 19, 2025 April 30, 2025	Sandbox available
LEP Historical(Cloud)	March 31, 2025	Sandbox available
FERC 881 deadline	July 12, 2025	

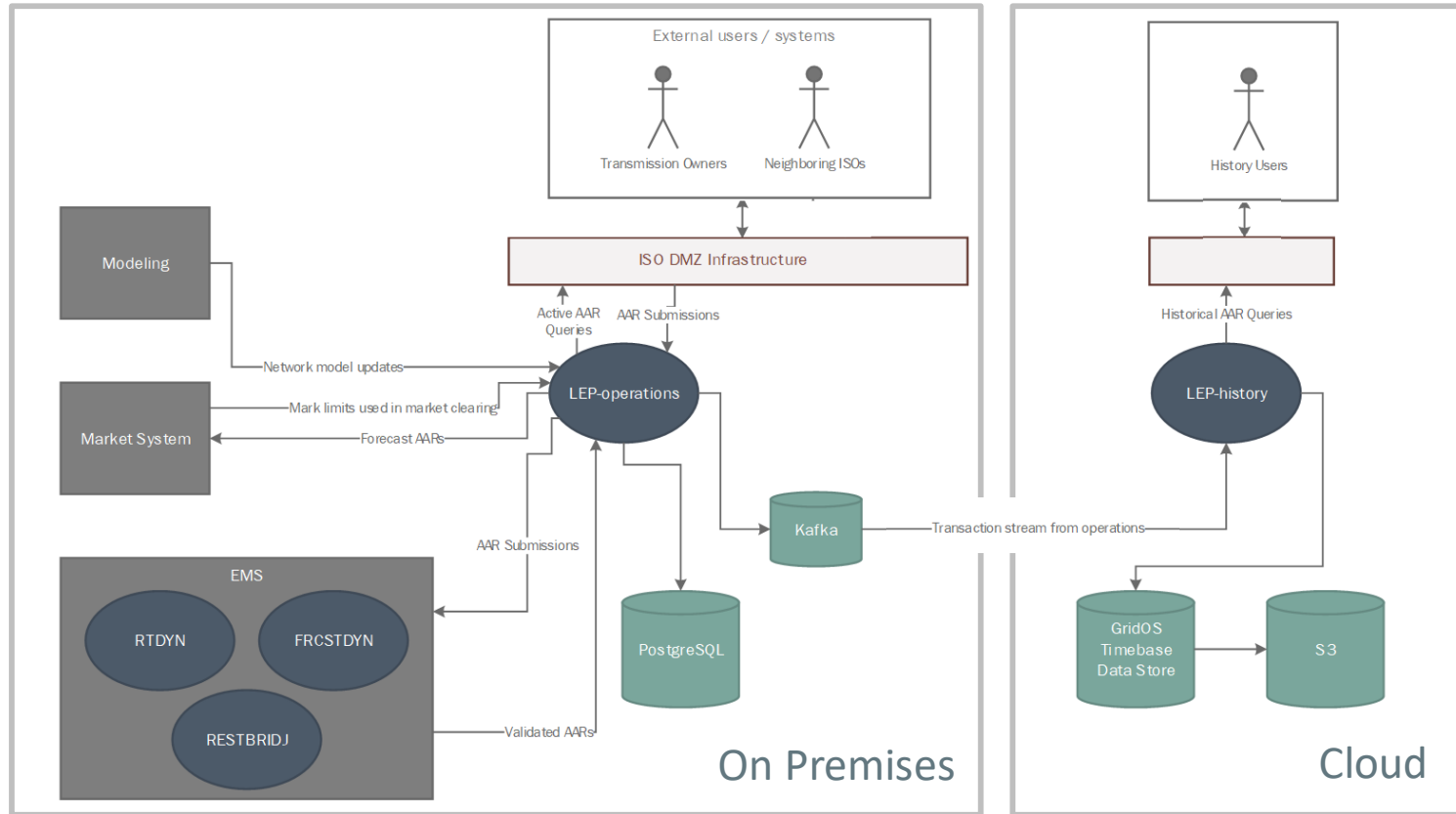
[Refer to page:FERC Order No. 881: Managing Transmission Line Ratings \(MTLR\) \(iso-ne.com\)](#)



LIMIT EXCHANGE PORTAL (LEP) OVERVIEW

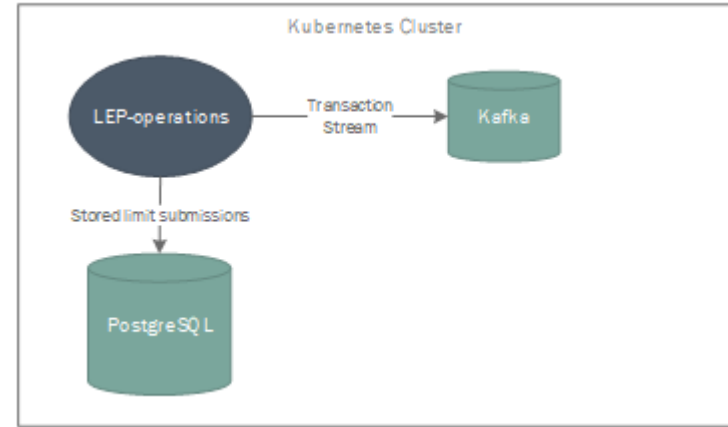


Overall 881 Architecture



LEP Operations

- **LEP-Operations** is the primary hub for equipment ratings, including real-time and forecasted ambient-adjusted ratings (AARs). It accepts submittals and queries, exposing APIs* and user interface for managing them. It is its own system component, keeping a rolling window of active limits stored in a PostgreSQL database. Both the Market System and the EMS have integrations with LEP-operations, and the RTDYN and FRCSTDYN (also known as the Forecast Dynamic Ratings application) have a symbiotic role with LEP-operations in validating or “clearing” limit submissions.
- For details on the API specifications:
<https://trolie.energy>



*Assumed to be primary communication pathway



LEP Operations - UI

GridOS LEP

Home

← → ↺ 🏠

👤 ⋮

🏠 Home

Welcome back!

Manage network components and transmission line ratings through Limit Exchange Portal.

📊 Ratings

View, update, and manage seasonal, forecast and real-time ratings.

⚡ Transmission Equipment

View and update transmission facilities, and network segments.

👤 Monitoring sets

Manage arbitrary defined sets of network components like segments, and transmission facilities.

📡 Local Transmission

View, update, and manage local transmission facilities.

📊 Temporary Ratings

Manage temporary AAR exceptions and seasonal rating overrides.

Version:1.0.0



LEP Operations – UI (cont.)

GridOS LEP

test-monitoring-set

DeleteUpdate

Basic Information

* Name

test-monitoring-set

Description

Example Monitoring Set

Select Transmission Facilities

No Filters Applied

Advanced Filters

	Transmission Facility	SEGMENT <		FROM		TO		
		Name	CIM Type	Terminals	Connected Substation	Base Voltage	Connected Substation	Base Voltage
<input type="checkbox"/>	>	HOPEWELL.3X.3X						
<input type="checkbox"/>	∨	GE_RIVER.A179-3.A						
<input type="checkbox"/>	∨	ROLF_AVE.P142.A						
<input type="checkbox"/>	>	VRNON_VT.381.A						
<input type="checkbox"/>	>	ORLEANS.1X.1X						
<input type="checkbox"/>	>	FISHR_RD.2X.2X						
<input type="checkbox"/>	>	WELFLEET.1X.1X						
<input type="checkbox"/>	>	BRAYTNPT.3A.3A						
<input type="checkbox"/>	>	MIDDLETN.1572.A						
<input type="checkbox"/>	>	HANOVER.3X.3X						

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12:22 GMT-4



Proposed Sandbox Functionality

1. Seasonal Ratings APIs and UI (Inclusive of Conditional Seasonal Ratings)
2. Reasonability Limits and AAR exemption fields APIs and UI
3. APIs to allow EMS to pull changes in Seasonal Ratings, Reasonability Limits, and Nominal Ratings
4. MMSeasonal Ratings APIs and UI (Inclusive of Conditional Seasonal Ratings)
5. Reasonability Limits and AAR exemption fields APIs and UI
6. APIs to allow EMS to pull changes in Seasonal Ratings, Reasonability Limits, and Nominal Ratings
7. MMS Integration: Export Up-to-Date Real Time and Forecast AARs to be used in Market Clearing
8. MMS Integration: Export AAR limits for Violated SFT Constraints
9. Control of data access based on rules and NERC ID
10. Temporary Ratings APIs and UI
11. EMS Interface APIs
12. Ability of LEP to auto-approve proposals without EMS
13. Validation of submitted ratings proposals against model and reasonability limits



NEXT STEPS FOR SANDBOX ACCESS



Assign Power System Limits Exchange Portal (LEP) Sandbox Roles to Users

Security Administrators (SAs) can assign the LEP operational sandbox roles to users that will perform testing for their company. To assign the roles, access the Application Roles Assignment screen from the Persons Application Access tab.

The screenshot displays the LEP application interface. On the left is a sidebar with navigation links: Basic, **Persons** (highlighted), Addresses, Dispatch Location, and Contacts. The main content area has a tabbed interface with the following tabs: Profile, Application Access (selected), MIS FTP Account, Certificates, Committees, Contacts, Change Log, and Mailing List. The 'Application Roles Assignment' screen is active, showing a heading, a help link, and a list of instructions.

Application Roles Assignment

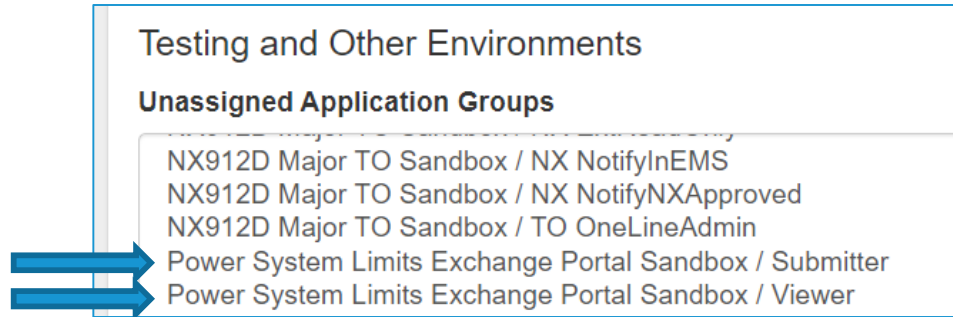
[View the Application Role descriptions \[xls\].](#)

- Select an existing user to copy roles from and/or directly manage access in the boxes.
- Roles for production access are in the top section; sandbox and other test environments can be managed in the bottom section.



Assign Power System Limits Exchange Portal (LEP) Sandbox Roles to Users (cont.)

SAs assign the LEP sandbox roles from the Unassigned Application Groups section of the page:



- Power System Limits Exchange Portal Sandbox / Submitter – submits ambient adjusted ratings (AARs) compliant with FERC Order No. 881 requirements.
- Power System Limits Exchange Portal Sandbox / Viewer – views submitted ambient adjusted ratings (AARs).



Assign Power System Limits Exchange Portal (LEP) Sandbox Roles to Users (cont.)

- SAs notify the users they grant access to the LEP sandbox and which role they have been assigned.
- Access will bridge to the user's digital certificate and allow access to the sandbox two hours after the role assignment is completed.
- Users can access the [Introduction to Transmission Ratings and Operating Limits Information Exchange \(TROLIE\)](#) technical introduction to view information presented by GE Grid Solutions, the Linux Foundation, and the Midcontinent Independent System Operator (MISO) to learn more about the LEP application.
- View project information on the [FERC Order No. 881: Managing Transmission Line Ratings project page](#).



Questions

